

## ABSTRACT

5 In order to correct frequency deviations of signals in a multicarrier system, such as a  
OFDM-system, the present invention provides a frequency tracker and a method to  
operate the same. The frequency tracker is based on a decision directed digital phase  
locked loop exhibiting a predictive character. On the basis of an estimated phase offset  
10 for a received signal (signal component, signal symbol) a predicted phase offset is  
calculated and applied to the signal (signal component, signal symbol). Further, received  
signals (signal components, signal symbols) are sampled and for each sample a sample  
phase offset to be corrected is calculated in dependence to the related estimated phase  
offset to incorporate the predictive character. In particular, the predicted sample phase  
15 offsets are calculated as a function of a corresponding predicted phase offset and a  
measure being indicative of a distance, in the time domain, between a corresponding  
phase reference point for the predicted phase offset and a phase reference point defined  
for a specific part of the received signal, preferably for a preceding preamble signal.

(Fig. 3)

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